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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/824,243	04/14/2004	Ho Kce Herbert Law	50T5479.01	6425
27774 7590 08/17/2007 MAYER & WILLIAMS PC 251 NORTH AVENUE WEST 2ND FLOOR WESTFIELD, NJ 07090			EXAMINER AMADIZ, RODNEY	
			ART UNIT 2629	PAPER NUMBER
			MAIL DATE 08/17/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/824,243

Applicant(s)

LAW ET AL.

Examiner

Rodney Amadiz

Art Unit

2629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04 June 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5, 7-16, 18-23, 25 and 26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-16, 18-23, 25 and 26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 August 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                                            |                                                                                         |
|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                                           | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-5 and 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mak (USPGPUB 2004/0085289—herein referred to as “Mak”) in view of Motoki et al. (U.S. Patent 6,752,758—herein referred to as “Motoki”).

As to **Claim 1**, Mak teaches an apparatus for interfacing with a user comprising: a first manipulandum (***Fig. 3, Reference Number 310 and Pg. 3, ¶ 38***) to provide a first type of input from the user to a computer program; and a second manipulandum (***Fig. 3, Reference Numbers 306a-306b and 308a-308b and Pgs. 3 and 4 and ¶'s 38-42***) disposed in close proximity to the first manipulandum to provide a second type of input from the user to the computer program, wherein said second type of input comprises discrete input (***Fig. 3, Reference Numbers 306a-306b and 308a-308b and Pgs. 3 and 4 and ¶'s 38-42***). Mak, however, fails to teach the first type of input comprising continuous input. Examiner cites Motoki to teach an analog joystick capable of inputting continuous input (***Motoki—Fig. 18, Reference number 145 and Col. 18, line 64—Col. 19, line13***). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to incorporate the use of an analog joystick as taught

by Motoki in the input device taught by Mak in order to provide the device with a greater degree of freedom to function.

As to **Claims 2 and 4**, Mak teaches the first manipulandum comprising a joystick (***Fig. 3, Reference Number 310 and Pg. 3, ¶ 38***).

As to **Claim 3**, Mak teaches the second manipulandum comprising a joy pad (***Fig. 3, Reference Numbers 306a-306b and 308a-308b and Pgs. 3 and 4 and ¶'s 38-42***).

As to **Claim 5**, Mak teaches the first type of input comprises directional input parallel to a base plane (***Pg. 3, ¶ 38—note that the joystick is “moved”***) and the second type of input comprises directional input perpendicular to the base plane (***Pg. 3, ¶ 38—note that the directional keys are “pressed”***).

As to **Claim 7**, Mak teaches the joy pad including one or more inputs (***Fig. 3, Reference Numbers 306a-306b and 308a-308b and Pgs. 3 and 4 and ¶'s 38-42***).

As to **Claim 8**, Mak teaches the joystick extending upward vertically from a center of the joy pad (***See Fig. 3***).

As to **Claim 9**, Mak fails to teach the joystick including a circular top. Examiner cites Motoki to teach a joystick with a circular top (***Fig. 18, Reference Number 128 and 145a and Figs. 19A-19D***). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to use a circular top for a joystick as taught by Motoki in the input device taught by Mak in order to provide a comfortable touching surface for a user's thumb.

3. Claims 10-16, 18-23 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mak in view of Motoki in view of Fleck et al. (U.S. Patent 6,977,811—hereinafter “Fleck”).

As to **Claim 10**, Mak teaches an apparatus for interfacing with a user (**Fig. 3**) comprising: a first manipulandum to provide a first type of input from the user to a computer program (**Fig. 3, Reference Number 310 and Pgs. 3-4, ¶ 38-42**), wherein the first manipulandum comprises a joystick (**Fig. 3, 310**); and a second manipulandum disposed in close proximity to the first manipulandum to provide a second type of input from the user to the computer program, wherein the second manipulandum comprises a joy pad (**Fig. 3, Reference Numbers 306a-306b and 308a-308b and Pgs. 3 and 4 and ¶'s 38-42**), wherein the joy pad including one or more inputs (**Mak—Fig. 3, Reference Numbers 306a-306b and 308a-308b and Pgs. 3 and 4 and ¶'s 38-42**). Mak fails to teach the joystick including a circular top. Motoki teaches a joystick knob with a circular top (**Fig. 18, Reference Number 128 and 145a and Figs. 19A-19D**). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art incorporate a circular top as taught by Motoki on the joystick taught by Mak so that users may easily grip and handle the joystick and to provide a comfortable touching surface for a user's thumb.

Mak, as modified by Motoki, however, fails to teach the circular top having a radius that extends almost to a beginning of the one or more inputs of the joy pad, whereby a user can simultaneously move the joystick and depress one input of the joy pad with a single digit. Examiner cites Fleck to teach an input device having a radius

Art Unit: 2629

that extends almost to a beginning of the one or more inputs of the joy pad, whereby a user can simultaneously move the joy stick and depress one input of the joy pad with a single digit (*Fleck—Fig. 1, Reference Number 112, Fig. 3, Reference Numbers 300-308 and Fig. 8 and Col. 4, lines 40-65 and Col. 5, lines 1-49*). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to form an input device relatively close to a keypad as taught by Fleck in the input device taught by Mak and Motoki so that the user would not have to reposition his fingertips across the keyboard to actuate a key (*Fleck—Col. 5, lines 13-25 and 35-49*).

As to Claim 12, Mak teaches an apparatus for interacting with a computer comprising: a multifunction switch including a plurality of buttons to accept one or more discrete inputs from the user (*Fig. 3, Reference Numbers 306a-306b and 308a-308b and Pgs. 3 and 4 and ¶'s 38-42*); and a joystick input device disposed in close proximity to the multifunction (*Fig. 3, Reference Number 310 and Pg. 3, ¶ 38*). Mak; however, fails to teach the joystick accepting continuous input from the user. Examiner cites Motoki to teach an analog joystick accepting continuous input from a user (*Motoki—Fig. 18, Reference number 145 and Fig. 24—note user operating Reference Number 202 and Col. 18, line 64—Col. 19, line 13*). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to incorporate the use of an analog joystick as taught by Motoki in the input device taught by Mak in order to provide the device with a greater degree of freedom to function. Mak fails to teach the joystick including a knob disposed on a top of the joystick and the knob having a circular top. Motoki teaches a joystick knob with a circular top (*Fig. 18, Reference*

**Number 128 and 145a and Figs. 19A-19D).** At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to place a knob with a circular top as taught by Motoki on the joystick taught by Mak so that users may easily grip and handle the joystick and to provide a comfortable touching surface for a user's thumb.

Mak, as modified by Motoki, also fails to teach the circular top having a radius that extends in radius to the plurality of directional inputs. Examiner cites Fleck to teach an input device having a radius that extends in radius to the plurality of directional inputs (**Fleck—Fig. 1, Reference Number 112, Fig. 3, Reference Numbers 300-308 and Fig. 8 and Col. 4, lines 40-65 and Col. 5, lines 1-49**). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to form an input device relatively close to a keypad as taught by Fleck in the input device taught by Mak, as modified by Motoki, so that the user would not have to reposition his fingertips across the keyboard to actuate a key (**Fleck—Col. 5, lines 13-25 and 35-49**).

As to **Claim 13**, Mak teaches the joystick disposed in a center of the multifunction switch (**Note Fig. 3**).

As to **Claim 18**, Mak teaches a method for interfacing a user and a computer program comprising: coupling a joystick to a computer interface to provide first input from a user to a computer program executing on a computer (**Fig. 3, Reference Number 310 and Pg. 3, ¶ 38**); coupling a joy pad to a computer interface to provide second input from a user to the computer program executing on the computer (**Fig. 3, Reference Numbers 306a-306b and 308a-308b and Pgs. 3 and 4 and ¶'s 38-42**);

Art Unit: 2629

and disposing the joystick in close proximity to the joy pad so that a single user's digit can manipulate both the joystick and one or more buttons or positions on the joy pad (**See Fig. 3—note that the apparatus is a phone which is a compact device and lends itself to this type of operation**). Mak fails to teach the joystick including a knob disposed on a top of the joystick and the knob having a circular top. Motoki teaches a joystick knob with a circular top (**Fig. 18, Reference Number 128 and 145a and Figs. 19A-19D**). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to place a knob with a circular top as taught by Motoki on the joystick taught by Mak so that users may easily grip and handle the joystick and to provide a comfortable touching surface for a user's thumb.

Mak, as modified by Motoki, also fails to teach the circular top having a radius that extends in radius to the plurality of directional inputs. Examiner cites Fleck to teach an input device having a radius that extends in radius to the plurality of directional inputs (**Fleck—Fig. 1, Reference Number 112, Fig. 3, Reference Numbers 300-308 and Fig. 8 and Col. 4, lines 40-65 and Col. 5, lines 1-49**). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to form an input device relatively close to a keypad as taught by Fleck in the input device taught by Mak, as modified by Motoki, so that the user would not have to reposition his fingertips across the keyboard to actuate a key (**Fleck—Col. 5, lines 13-25 and 35-49**).

As to **Claim 19**, Mak teaches performing predetermined operations in the computer program from a combination of inputs from both the joystick and the joy pad (**Pgs. 3-4, ¶'s 38-42**).



As to **Claim 20**, Mak teaches the joystick extending upward vertically from a center of the joy pad (***See Fig. 3***).

As to **Claims 14-16 and 21-23**, Mak teaches the joy pad including a plurality of inputs disposed in a cross pattern, circular pattern and a star pattern (***See Fig. 3 and note the positions of elements 306a-306b and 308a-308b***).

As to **Claims 11 and 25**, Motoki teaches the circular top/knob including a beveled edge (***Fig. 18, Reference Number 128 and 145a and Figs. 19A-19D***).

4. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mak in view of Motoki and Fleck, as applied to claims 10-16, 18-23 and 25 above, and in further view of Harding et al. (U.S. Patent 6,184,869—herein referred to as “Harding”).

As to **Claim 26**, Mak, as modified by Motoki and Fleck, fails to teach the joy pad including a touch pad. Examiner cites Harding to teach an input device having multi-directional detection devices that can be simultaneously operated wherein a touch pad is used in conjunction with joysticks and other multi-directional devices (***Col. 5, line 63—Col. 6, lines 21***). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to incorporate the use of a touch pad as taught by Harding in the input device taught by Mak in order to produce more accurate detection.

### ***Response to Arguments***

5. Applicant's arguments filed June 4, 2007 have been fully considered but they are not persuasive. The Applicant argues that because Motoki is directed to an endoscope

and Mak is directed to a phone that "Motoki would [not] have come to Mak's attention in considering a way to 'provide his device with a greater degree of freedom to function' (Pg. 7, last paragraph). The Examiner respectfully disagrees. Both Mak and Motoki are analogous in that they both teach the use of joysticks as input devices. Being that a joystick is primarily an input device used in multiple fields and for various functions it can easily be seen how these joysticks are related. Furthermore, the Examiner, by no means, is using the functions of the Endoscope as taught in Motoki and placing them in the phone. The Examiner merely refers to the teachings of the functions of the joystick taught by Motoki.

The Applicant also argues the Examiners motivation to combine stating that "such a combination would 'provide the device with a greater degree of freedom to function' relies solely on upon the Applicant's very own teachings" (Pg. 8, first paragraph). The Examiner respectfully disagrees. The Examiner used Motoki to teach that the joystick was an *analog* joystick. This inherently defines the joystick as having continuous input and not discrete inputs; thereby providing the joystick with a greater degree of freedom to function (i.e. if the joystick were discrete it would only move in the north-south, east-west directions. An analog joystick has more mobility as it can move in more directions than just north-south or east-west).

The Applicant also argues that none of the references teach that the "user can simultaneously move the joystick and depress one input of the joy pad with a single digit" (Pg. 9, third paragraph). The Examiner respectfully disagrees. Fleck clearly

teaches this in Col. 5, lines 13-49. Furthermore, the structural limitations are met by Fleck in Figures 1 and 3; whereby the function is inherent to the structure.

Finally, the Applicant argues that Fleck doesn't teach that the mouse button "extends in radius to the plurality of discrete inputs" (Pg. 9, last paragraph). The Examiner respectfully disagrees. Fleck clearly shows the mouse button (Fig. 3, 300) extends in radius to the discrete inputs (302, 304, 306 and 308). Furthermore, Fleck teaches that the mouse button (300) is self-centering (Col. 4, lines 51-58), which clearly implies that the mouse can move towards the discrete buttons.

### ***Conclusion***

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.


***Inquiries***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rodney Amadiz whose telephone number is (571) 272-7762. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sumati Lefkowitz can be reached on (571) 272-3638. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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